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other Federal bureaus and local organizations. The snow measurements are made principally by field personnel of the following organizations: Forest service, National Park Service, Bureau of Reclamation, U. S. Geological Survey, Engineers of Wyoming and Colorado, and various municipalities, irrigation associations, power companies and others. Precipitation records are supplied by the U. S. Weather Burcau. Bureau of Agricultural Engineering of the U. S. Department of Agriculture, in cooperation with State departments, The following data pertaining to snow surveys and irrigation water-supply forecasts are provided by War Department and State Experiment Stations. This work is otherwise conducted cooperatively with the State

precipitation, October to March inclusive, was 6.4 inches or 0.4 inch above normal. On the watershed of the South and the October to March precipitation was 5.0 inches which was 0.1 above normal. Similar values for the Arkansas focky Mountains, in Wyoming, the March precipitation was 1.4 inches which was 0.2 inch above normal. The seasonal 51 percent more than normal. The accumulated average precipitation from October to March inclusive was 5 percent Precipitation during March on the watershed of the Missouri and its tributaries in western Montana was River watershed are 1.9 inches for March and 5.6 inches from October to March which are respectively 0.8 to 0.2 Platte in the mountain area of Colorado the precipitation during March was 2.1 inches, or 0.8 inch above normal and the accumulated precipitation from October to March was 12 percent above normal. On the east slope of the less than normal. In the eastern part of the State the precipitation during March was 46 percent above normal

Platte River reservoir storage is 20 percent below what it was at this time last year and storage in the reservoirs and in Jackson Lake on the Snake River it is 20 percent less than last year. On the upper watershed of the South on the lower river is 30 percent below last year. In the Poudre Valley there is 20 percent more water in storage comparison. Storage in the Shoshone Reservoir on the Bighorn River watershed is 12 percent less than last year Reservoir storage on the North Platte River watershed in Wyoming is 60 percent greater than it was on reservoirs are practically all empty and in the higher portion of the Arkansas River watershed storage is about 40 percent of what it was last year. than on April 1, 1937. There is a pronounced shortage of water for storage in the Arkansas Valley. The plains April 1, 1937. Storage in Alcova Reservoir which is being filled for the first time is not included in the

In the South Platte Valley in Colorado, near the foothills, the soil is generally in good condition from the standpoint of moisture but in the plains area the moisture is deficient. In the Upper Arkansas and tributary In the North Platte Valley in Wyoming the soil moisture condition is good except in the plains area. Soil moisture conditions improved materially on the Missouri and its tributaries in Montana during valleys there is ample moisture in the soil but in the plains area the moisture condition is poor.

Rivers on April 1 was 13.6 inches as shown by the records from 24 snow courses. Comparable records are available The water content of the snow on the watersheds of the Yellowstone, Jefferson, Madison and Gallatin

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between Helena and Great Falls show 20 percent less water in the snow than there was on April 1, 1937. Readings last year, the percentages being 32, 22 and 20 respectively. On the watersheds of the Shoshone, Bighorn, Tongue greater this year than last. The average increase during March was 3.1 inches. Courses on the Missouri River for April 1, 1937 for 18 of these courses and the records from them show that the water content is 15 percent on the courses on the Vellowstone River indicate that there is 25 percent more water stored in the snow than and Powder Rivers the water content as shown by 16 snow courses was 13,1 inches. For 11 of these courses the greater than last year at this time. On the watersheds of both the Moshoncand the Bighorn Rivers the water last year. For the Jefferson, Madison and Gallatin River watersheds the water content is also greater than content was a little over 35 percent greater than last year. Comparable records are not available for the records are comparable with the April 1, 1937 readings. They show that the water content was 38 percent Tongue and Powder Rivers.

that the water content on April 1 was 55 percent greater than it was last year. On the Cache la Poudre River, tributary of the South Platte, 7 snow courses showed a water content of 14,7 inches, which is 65 percent greater than it was on April 1, 1937 but is slightly less than it was on April 1, 1936. Nine courses on the watershed of the Arkansas River showed 10.2 inches of water as of April 1, 1938. This is 30 percent more On the watershed of the North Platte proper the water content of the snow on April 1 was 20.8 inches 12.5 inches which is 20 percent more than last year. Fifteen courses on the South Platte and its tributaries as shown by 11 courses. Compared with last year this is 8 percent greater than it was on April 1, 1937. On the 7 courses on the Laramie River, tributary of the North Platte, the water in the snow, April 1, totalled show a water content of 13.3 inches. Comparable records are available for 10 of these courses. They show

exception of the Poudre which will probably be 50 percent greater. The flow of the Arkansas as indicated by The foregoing snow course measurements indicate that flow of all the principal tributaries of the Missouri in Montana, Wyoming and Colorado will be greater than last year by from 10 to 25 percent with the the snow in the mountains will probably be about 25 percent greater than last year.

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of Agricultural Engineering, U. S. Dept. Agr.; Forest Service; Colo. Agri. Expt. Station Federal and State Cooperative Snow Surveys Summary of Bureau

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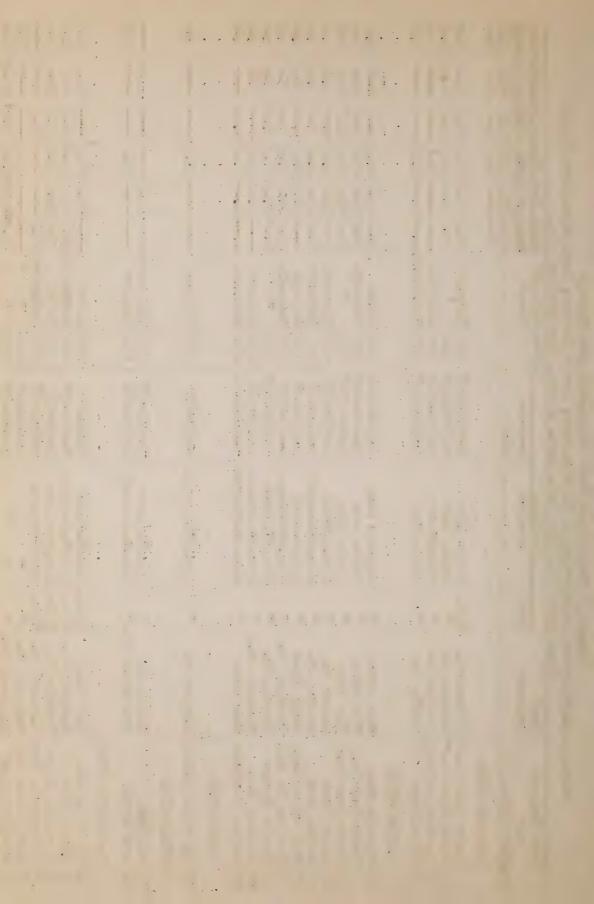
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Summary of Federal and State Cooperative Snow Surveys

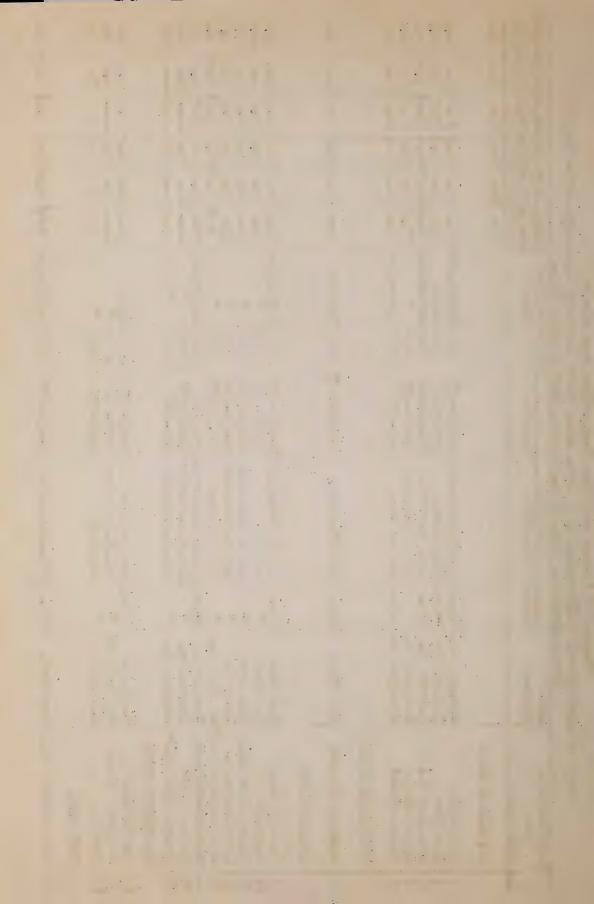
Bureau of Agricultural Engineering, U. S. Dept. Agr.; Forest Service; Colo. Agric Expt. Station

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	Main Drainage		SHOSHONE RIVER	Brooks Lake No.1*  19 Brooks Lake No.2*  35 Up. Hardpan Basin  22 Sylvan Pass	BIGHORN RIVER	Togwotee Pass Brooks Lake No.1 Brooks Lake No.2	16 Ranger Creek		Sheridan Cr. R.S. Whorten Meadow Tensleep R.S. Dunrude Dude Rnch.	TONGUE RIVER	17 Big Goose Gr.R.S. E.Goose Gr.	POWDER RIVER	30 Red Fork 31 Sour Dough	NO. PLATTE RIVER	51 Big Creek Lake 7 Bottle Creek 8 Columbine Lodge 4 Headquarters Park 57 Worth French Cr.



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Summary of Federal and State Cooperative Snow Surveys

Bureau of Agricultural Engineering, U. S. Dept. Agr.; Forest Service; Colo. Agri. Expt. Station

Issued April 11, 1938. Colo. Expt. Station, Fort Collins, Colo.

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## MISSOURI AND ARKANSAS

Summary of Federal and State Cooperative Snow Surveys

Bureau of Agricultural Engineering, U. S. Dept. Agr.; Forest Service; Colo. Agri. Expt. Station

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	1 Snc	Snow I	1937	In.		-	0	14th - 8	*31.5*	45.1	28.5	28.0	33.2	33.8	
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\*On adjacent drainage #Readings on original course \$Measurements taken on March 16.

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